

LIONS GATE

SECONDARY Wastewater Treatment Plant

District of North Vancouver October 29, 2013

Marie Griggs

Manager, Public Involvement, Metro Vancouver

Christine Banham (Chair), Diana Sollner (Vice-chair)

Lions Gate Public Advisory Committee (LGPAC)

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Engagement and Consultation

Marie Griggs

Manager, Public Involvement, Metro Vancouver

District of North Vancouver

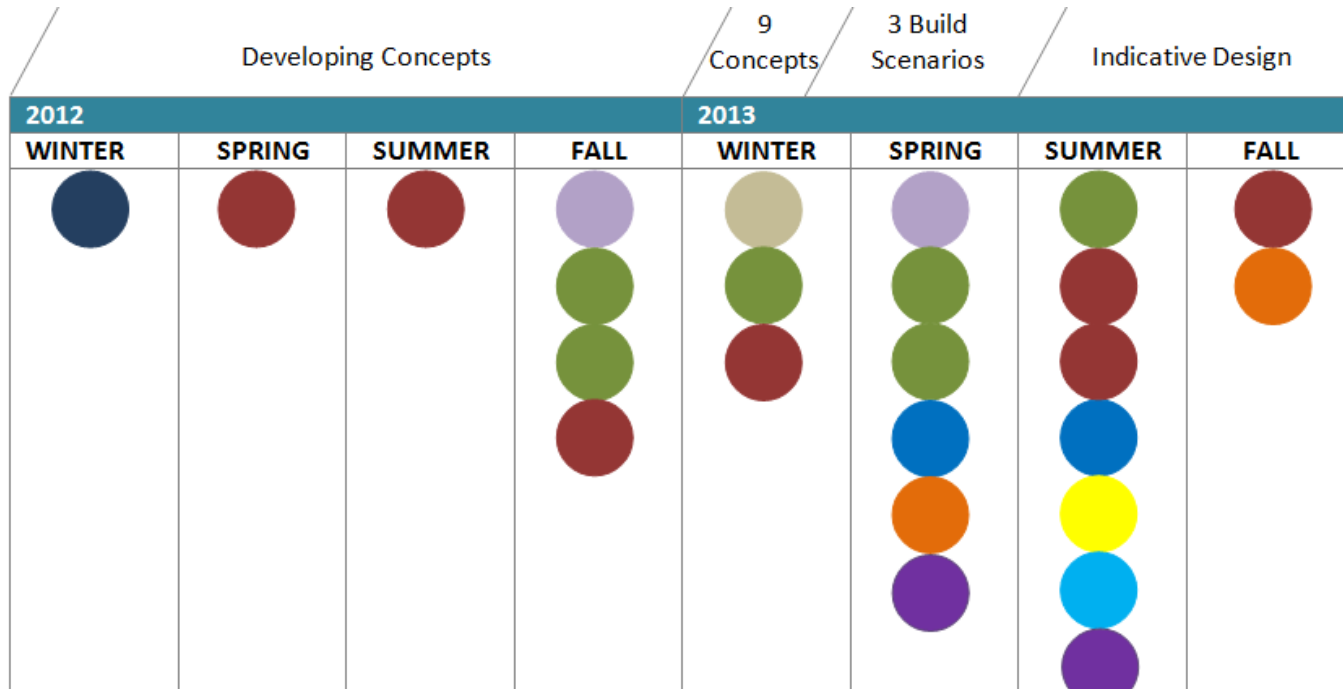
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Engagement Program



24

Intergovernmental Meetings

71

KEY

Community Resource Forum



Norgate Open House



Community Workshop



Norgate Residents' Block Party

Lions Gate Public Advisory Committee



Norgate Residents' Workshop



Norgate Business



Public Meeting



Norgate Community Association



Study/Tours of Plants



95

Public Input

Norgate community and other North Shore residents most active participants:

86% April public meeting

75% October public meeting

Regional interests focused primarily on cost-sharing and overall project costs.

Engagement and Consultation Events

24 Public Meetings/Events

- 7 Lions Gate Public Advisory Committee (LGPAC) meetings
- 2 Community Resource Forum (CRF) meetings
- 6 Community workshops (CRF & LGPAC)
- 3 Norgate residents' meetings and open houses
- 2 Norgate business meetings
- 1 Norgate block party
- 1 U.S. study tour & 1 local plant tour
- 2 Public meetings

71 Intergovernmental Meetings



Public Input & Communication Methods

- 24 public meetings/events
- 50 online survey responses
- 70 Norgate business survey responses
- 175 feedback form responses
- 600 pieces of correspondence
- Media relations, project website, newspaper ads, flyers, email



Key Public Issues

Odour

Noise

Air Quality

Community
Amenities

Traffic
Impacts

Aesthetics

Educational
Opportunities

Environmental
Impacts & Long-
term Planning

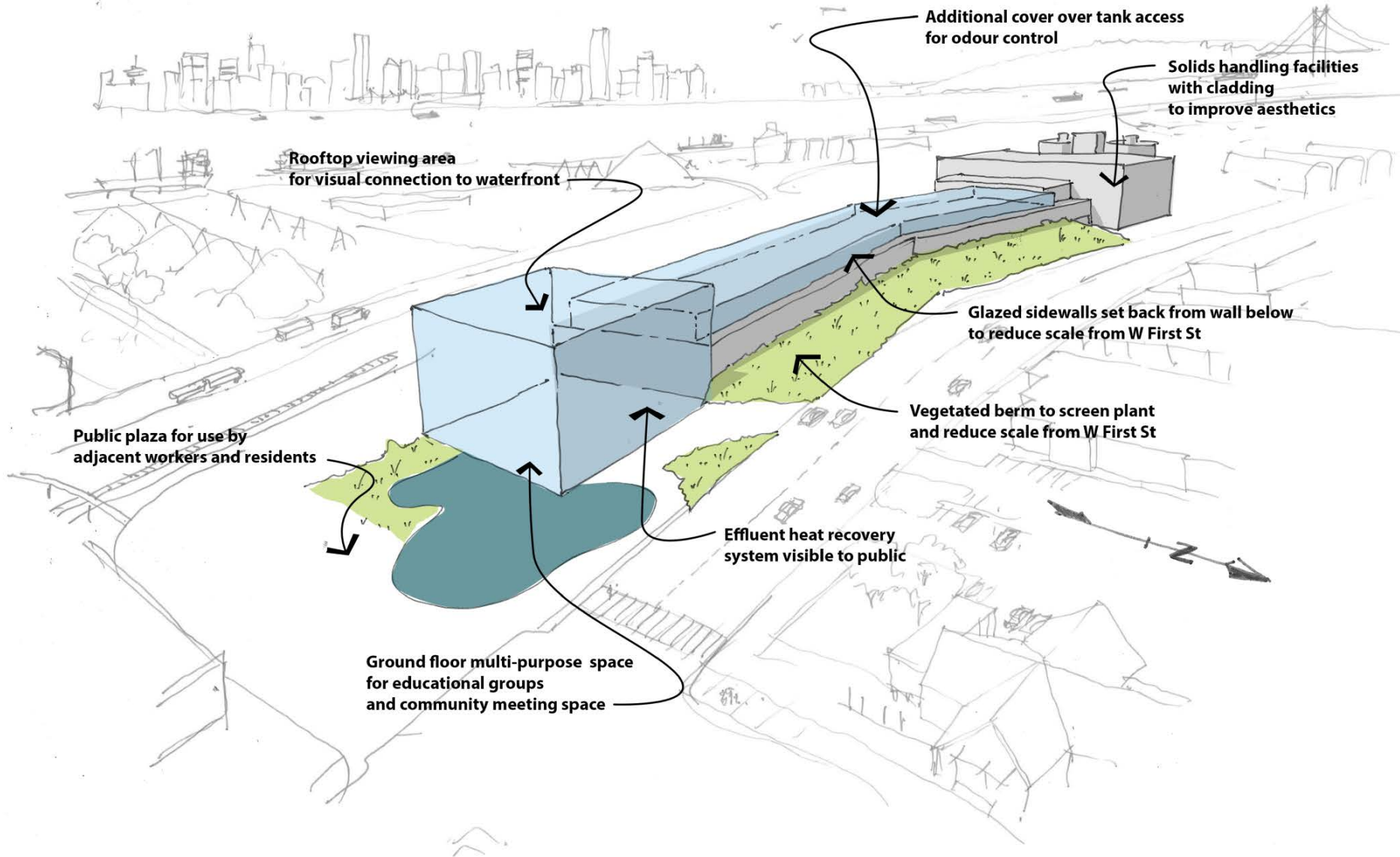
Cost

Integrated
Resource
Recovery

Construction
Impacts

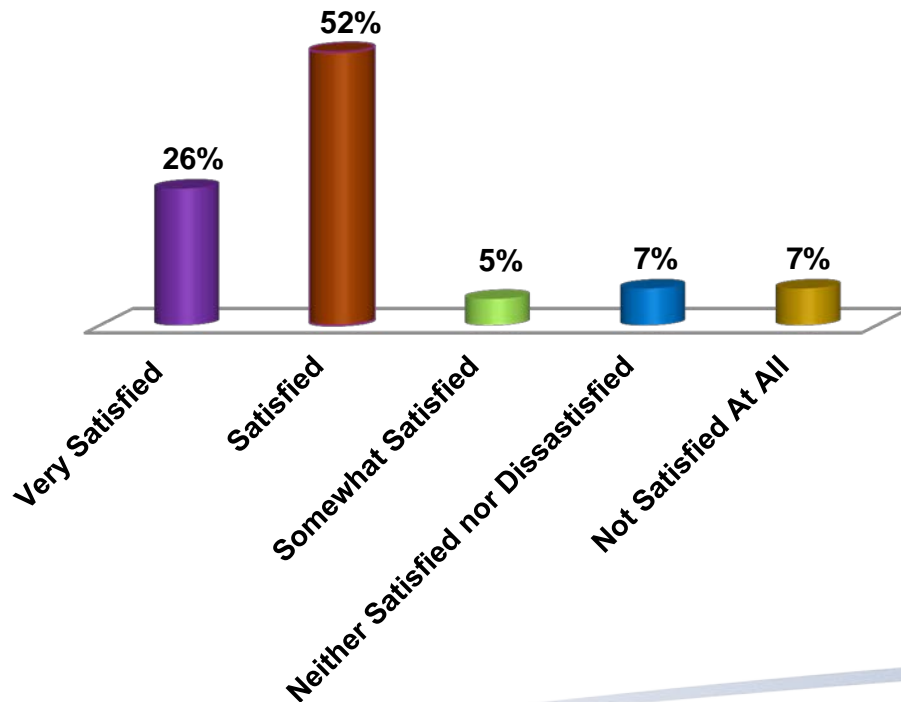


Indicative Design: Addressing Public Input



Consultation Process Results

How satisfied are you with the manner in which MV is gathering public feedback?

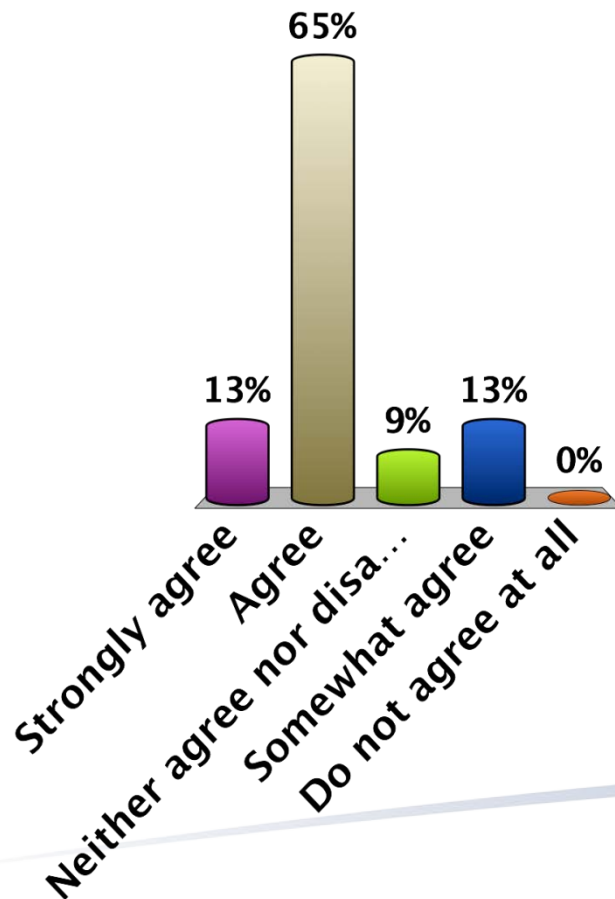


Results from:

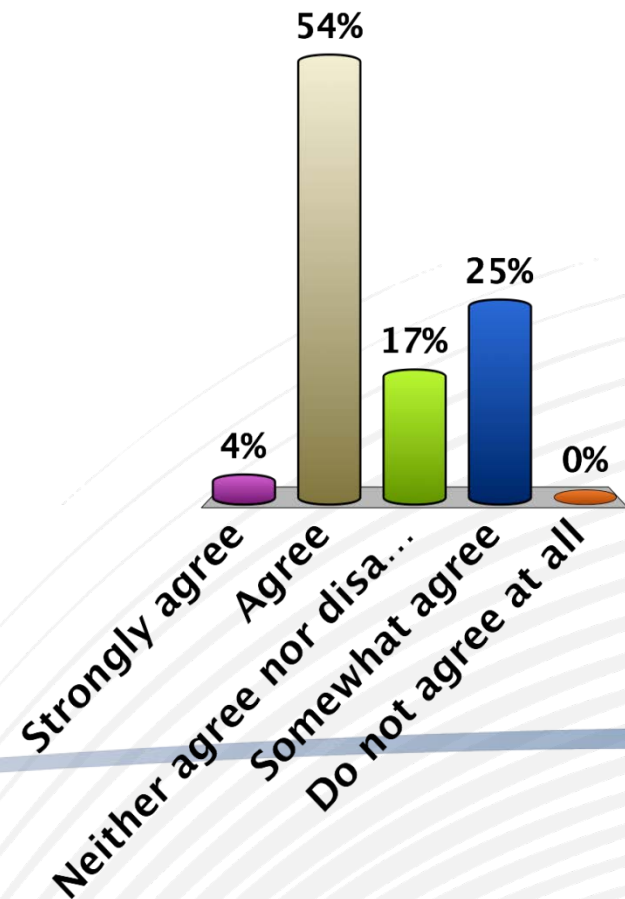
- Norgate Residents' Workshop (September)
- Business Meeting (September)
- Public Meeting (October)
- Online Survey (October)

Public Meeting Results

Does the Indicative Design
respond to community values?



Does the Indicative Design
address potential
community impacts?



Next Steps

- Indicative Design and Consultation Reports:
November 7 Utilities Committee Meeting
 - Presentation by LGPAC
- Utilities Committee Recommendations:
November 15 MV Board Meeting
- Board Subcommittee on Delivery and Construction: 2014
- Consultation on Design and Construction: 2014 - 2020

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SECONDARY Wastewater Treatment Plant



Community Values and Interests for Design

Christine Banham (Chair) and Diana Sollner (Vice-chair)
Lions Gate Public Advisory Committee

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LGPAC Mandate

- Provide advice to Metro Vancouver during the Project Definition Phase on the effects on North Shore communities of the planning and construction of the treatment plant
- Membership: 11 Primary Members; 8 Alternates
 - Norgate Community
 - Environment
 - Business
 - Non-affiliated citizens
- 11 meetings and workshops from June 2012 to October 2013
- Washington State study tour of 4 wastewater treatment plants

LGPAC Key Issues, Values and Priorities

Five main themes identified and explored during the Project Definition Phase:

1. Community Impacts
2. Community Integration
3. Environment
4. Economics
5. Education

1. Community Concerns

Odour

- Odour control is a major priority for the community
- Washington State study tour showed technology can prevent odour
- A 'no-odour' standard is mandatory
- LGPAC supports the Indicative Design that provides assurance of no odour under normal operations

Emissions

- Exhaust from co-generation and flaring of excess biogas can impact air quality
- LGPAC supports Metro Vancouver's commitment to monitoring air quality and recommends air quality monitoring in nearby residential areas

Community Concerns cont'd

Noise

- LGPAC supports the indicative design (building siting and massing) that will help reduce noise from the industrial area into the community
- LGPAC recommends that concrete surfaces be treated to mitigate sound reflection

Truck traffic

- LGPAC supports Metro Vancouver's commitment to restrict truck traffic to day time hours only

Construction

- Construction plans have not been discussed in the Project Definition phase
- LGPAC recommends that engagement continue to address construction planning and implementation

2. Community Integration – LGPAC Priorities

Aesthetic design

- Height, massing, landscaping, water features and public spaces are positive attributes
- Additional consideration of building treatment required to improve aesthetics

Public access

- LGPAC supports public access and use for education, compatible activities (e.g., Research Centre of Excellence, public viewing, use of roof space)

Revenue generation

- Most LGPAC members support consideration of revenue generation activities, but the priority must remain for wastewater treatment

3. Environment – LGPAC Priorities

LGPAC supports the Indicative Design that provides for secondary treatment allowing for:

- Future higher level of treatment if required
- On-site digestion to reduce the mass of biosolids
- Proactive public education and source control to reduce contaminants
- Air emission containment and monitoring
- Consideration of shoreline habitat enhancement, subject to cost
- Energy efficient technologies where practical and cost efficient
- Plant design that addresses risk of sea level rise and catastrophic events

4. Economics

LGPAC members:

- Are strongly concerned about ratepayer impacts
- Question the financial model assumptions (discount rate, amortization) as they may differ from market-based modeling
- Most LGPAC members supports market-based financial modeling to allocate costs to ratepayers (1 member disagrees with this approach)

LGPAC supports pursuing all federal and provincial funding options

Most LGPAC members support considering a P3 delivery model, while some feel more study on delivery models is still needed.

5. Education

LGPAC members support proactive public education for household source control and water use:

- Learning modules for schools
- Homeowner education and awareness of disposing of chemicals
- Treatment plant tours
- On-line engagement

Education is essential to:

- Reduce contaminants into the waste stream
- Improve the environment
- Potentially save taxpayers' money

Project Definition to Final Design

LGPAC generally supports the Indicative Design as proposed by Metro Vancouver in the Project Definition phase

In consultation with the community, the Final Design should address in more detail:

- Odour control technology to achieve zero impact on the community
- Procurement delivery model
- Construction plans and impact mitigation
- Fair cost allocation to taxpayers
- Proactive public education program

Conclusion

LGPAC members:

- Feel that the concerns of the local community and the broader community have been heard
- Agree that the Indicative Design has addressed the issues that matter to our community, recognizing more work will be done in the final design phase
- Support Metro Vancouver continuing with community engagement during the next phase of the project

LGPAC commends Metro Vancouver on this innovative and interactive community engagement process.

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Fred Nenninger

Project Manager, Wastewater Treatment Upgrades
Metro Vancouver

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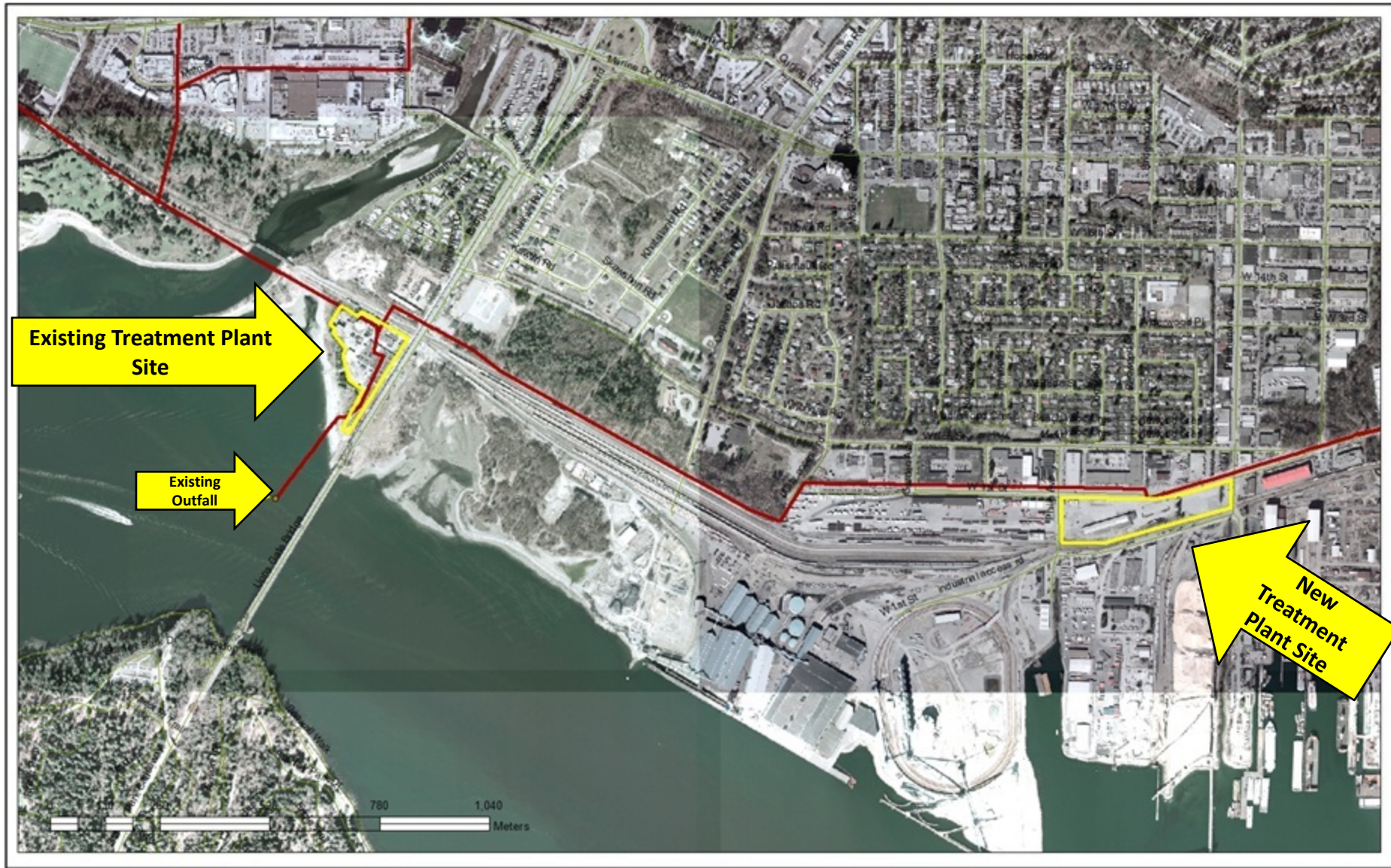
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New Location



Key Project Objectives

Secondary Wastewater Treatment

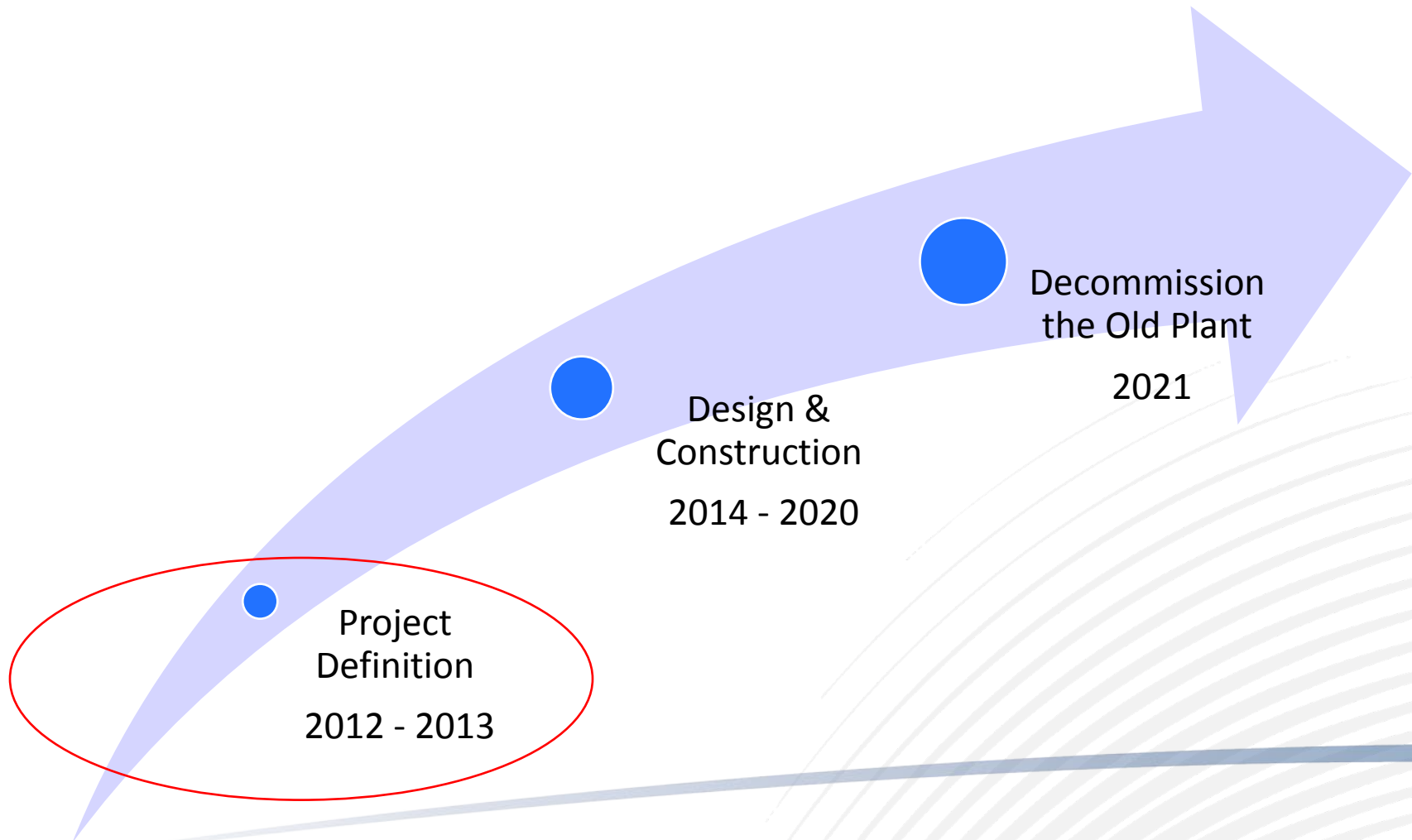
Sustainability

Environmental, Social, Economic

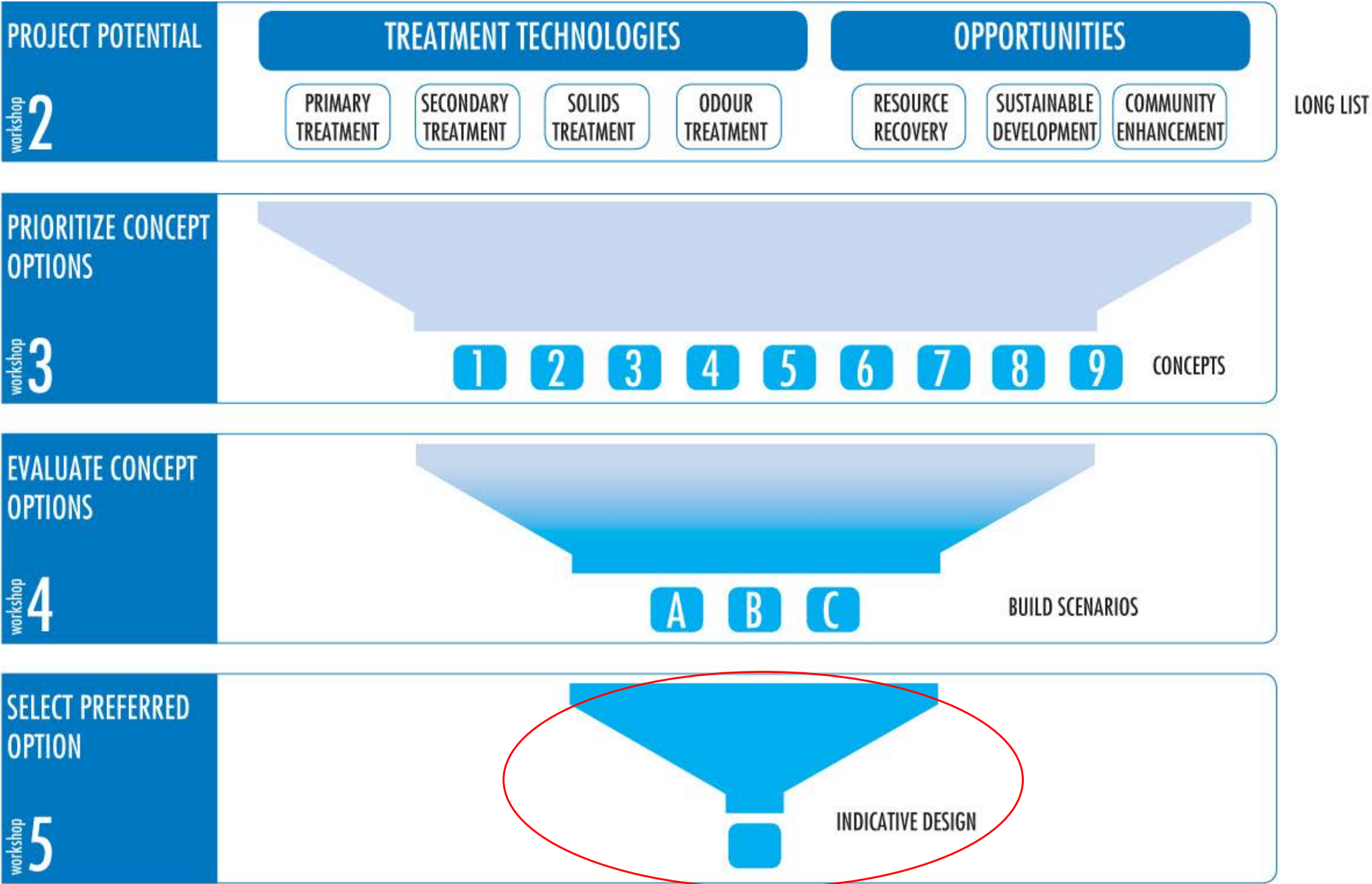
Integrated Resource Recovery

Community Integration

Overall Project Timeline



Approach



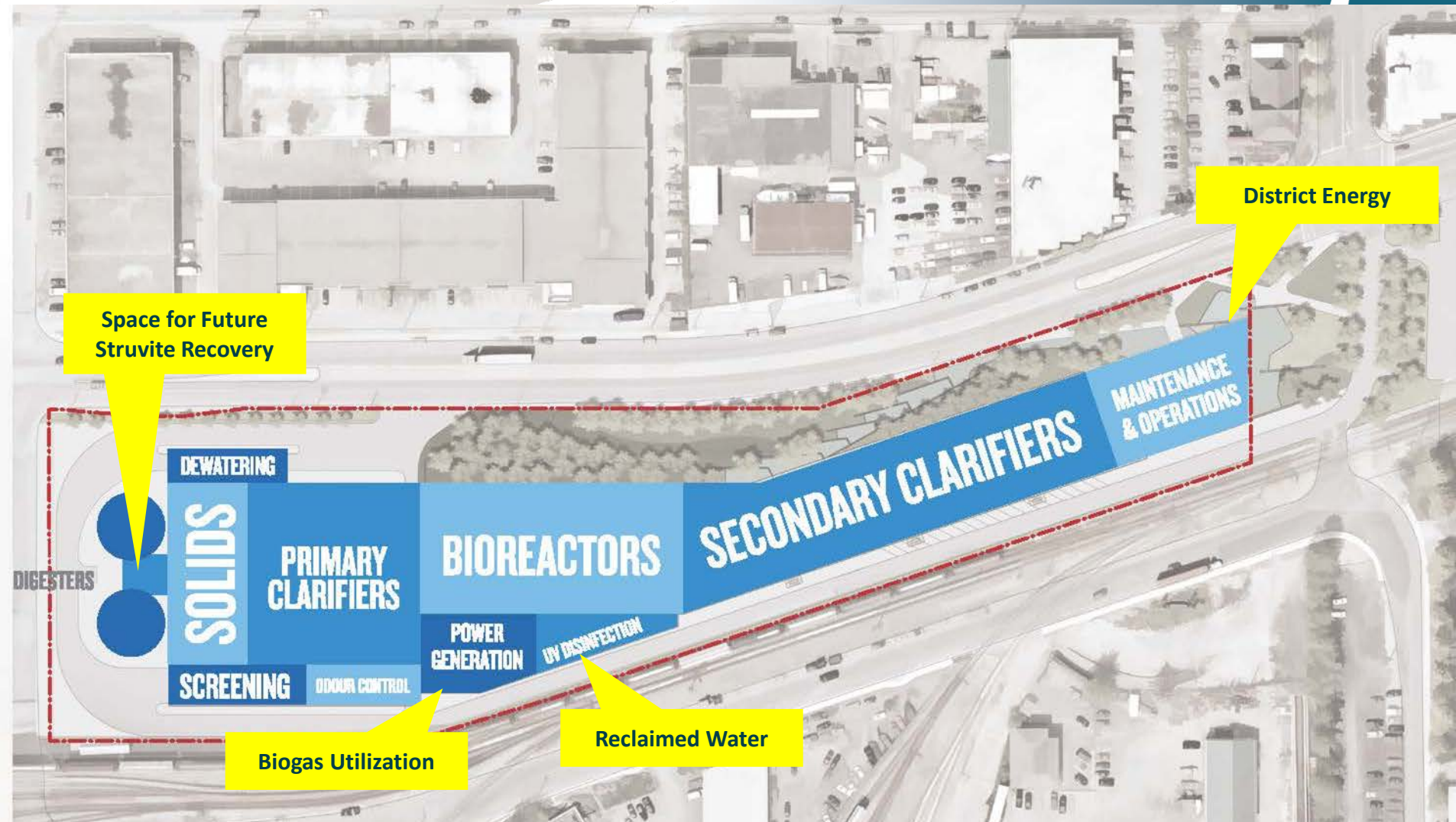
Indicative Design

- Secondary Treatment for 2 x Average Dry Weather Flow
- 320 MLD wet weather capacity
- Biogas production and energy recovery
- Low grade effluent heat recovery
- Reclaimed water recovery
- Phosphorus recovery – future potential

Plant Layout – Indicative Design



Integrated Resource Recovery



Biotowers

Activated Carbon



SITE PLAN

























Funding Programs

	Building Canada	P3 Canada
Status	<ul style="list-style-type: none">•Announced in 2013•Application process to be finalized	Receiving applications in 2014
Procurement Options	P3 screening business case required by provincial and federal governments	Must be a P3 for eligibility

Compared Three Project Delivery Alternatives

Design-Bid Build (DBB)	Design-Build finance (DBf)	Design-Build-Finance-Operate-Maintain(DBFOM)
Traditional contracting approach	Design-build with an extended warranty period	A full public-private partnership (P3)

Design and Construction Delivery

Subcommittee to review options and business case and recommend the procurement approach for the Design and Construction Phase.

Questions?

